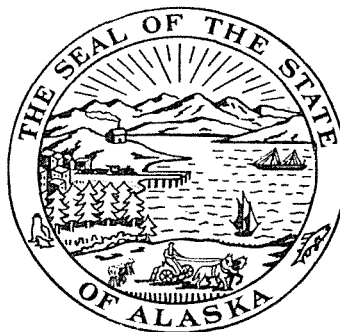


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STATE OF ALASKA

William A. Egan, Governor



ANNUAL REPORT OF PROGRESS, 1969 - 1970

FEDERAL AID IN FISH RESTORATION PROJECT F-9-2

SPORT FISH INVESTIGATIONS OF ALASKA

ALASKA DEPARTMENT OF FISH AND GAME

Wallace H. Noerenberg, Commissioner

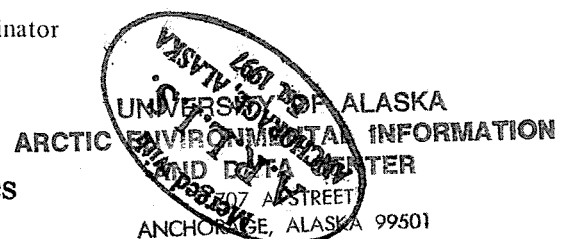
Alaska DIVISION OF SPORT FISH

Rupert E. Andrews, Director

Howard E. Metsker, Coordinator

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INTRODUCTION

This report of progress consists of Job Segment Reports from the State of Alaska, Federal Aid In Fish Restoration, Project F-9-2, "Sport Fish Investigations of Alaska".

The studies reported herein are investigations evaluating the sport fish resources of the state. Recreational and other impacts on the fishery resources necessitates a continuous endeavor of ascertaining facts and knowledge of the fisheries. The 24 jobs reported on are of a continuing nature. The investigations are composed of 11 projects involved with the inventory and cataloging of the sport fish waters of the state, sport fishery creel censuses, and access. Fish species that received special investigational effort include: Dolly Varden, anadromous fish, grayling, sheefish, whitefish, pike, char, and salmon. The information gathered from the combined studies provides necessary background data for a better understanding of management problems and constitutes a basis for necessary future investigations.

The subject matter contained in these reports is incomplete, and the findings and interpretations subject to re-evaluation as work progresses.

<i>State:</i>	Alaska		
<i>Project No.:</i>	F-9-2	<i>Name:</i>	Sport Fish Investigations of Alaska.
<i>Job No.:</i>	12-B	<i>Title:</i>	Studies of Unique and Trophy Game Fishes.
<i>Period Covered:</i>	July 1, 1969 to June 30, 1970.		

Angler acceptance of the Bristol Bay trophy fish program is discussed, with attitudes and opinions pertaining to the trophy fish concept and regulations solicited and tabulated.

A brief summary of subsistence fishing impact upon trophy rainbow trout stocks of the area is included.

1. Continue the study of unique and trophy game fishes with special reference to rainbow trout in the Kvichak River watershed.
2. The present program at Lower Talarik Creek should be expanded to include life history, migration patterns, and growth rates which are essential to an understanding of the trophy rainbow trout population of the watershed.
3. Conduct a study of hooking-related mortalities of rainbow trout at Lower Talarik Creek under conditions comparable to that of the sport fishery.
4. Continue to collect creel census information which will yield reliable harvest estimates and sample angler acceptance of existing trophy fish levels at Lower Talarik Creek. Extend the coverage to remaining trophy fish areas as budgetary considerations will allow.
5. Obtain information on the use of rainbow trout for subsistence purposes. Seek possible solutions to sport fishery-subsistence fishery conflicts.

1. To initiate a study associated with management of designated trophy fish areas including, but not limited to:
 - a. Effectiveness of existing regulations in maintaining present trophy fish stock levels including:

1. Trophy species retention-release ratios.
2. Hooking-related mortalities of released rainbow trout.
- b. Angler acceptance of existing regulations for trophy fishing areas.
2. To obtain an annual estimate of angler participation and harvest levels in trophy fish management areas.
3. To evaluate biological data reported in other parallel studies in relation to trophy fish population management.
4. To provide management recommendations for existing trophy fish populations.

TECHNIQUES USED

All fish sampling, capturing and tagging, and recovery was accomplished by hook and line, both by anglers in the sport fishery and by department personnel.

Anglers were contacted directly for creel census information, including retention-release ratios and attitudes toward the trophy fish program.

Biological data from parallel studies was obtained and reviewed.

FINDINGS

Angler Acceptance of the Trophy Fish Program

The following evaluation is based upon interviews made during angler creel censuses from June 13 to September 6, 1969, within designated Bristol Bay trophy fish areas. In addition to standard census information, anglers were asked for their opinion of trophy regulations.

Military Anglers

Creel census of military effort was made at Igiugig, where the Alaska Air National Guard operates a fishing recreation camp. At Igiugig, groups of 10 to 20 anglers were flown in for two- to four-day fishing periods. Replacement groups flew in on the return which carried the original group back to Anchorage.

The creel census was conducted from June 27, when intensive military effort began, to July 17, 1969, when the effort was temporarily suspended. Resident military effort continued intermittently until late in the fishing season.

Nonresident Military Anglers:

During the census period June 27 to July 17, 1969, approximately 87 visiting military anglers contributed to 237 angler days. An estimated 90% of the anglers agreed with existing trophy regulations. Most expressed appreciation of the fine fishing in the area and understood the department's fishery management concern.

Interest was shown concerning the age of trophy-class rainbow trout and other life-history aspects. Anglers assisted on occasion in tagging and releasing rainbow trout and grayling in the Igiugig area.

Resident Military Anglers:

The recreation camp at Igiugig maintained a staff of five resident servicemen. Resident military anglers often accompanied out-of-state fishing groups, and on four occasions, special flights were made.

During the census period, approximately 85 resident military anglers accounted for 130 angler days.

The majority of the anglers (90%) agreed with the regulations. The remaining 10% were skeptical or dissatisfied with the single-hook and bag limitations, as were the nonresident fishermen. Ten percent of the servicemen felt there were more rainbow in the system than "fishermen could catch".

The camp directors and personnel (boat operators, cooks, etc.) were cooperative with the department and readily complied with suggestions.

Civilian Anglers

Civilian anglers censused at various trophy fish areas from June 13 to September 6, 1969, were relatively small in number. Trophy fish areas are essentially "fly-in fisheries" which limits fishing pressure volume.

During the period June 14 to July 22, 1969, a total of 85 civilian anglers were censused at Igiugig, where a wheel-plane landing strip is available.

Except for the Newhalen and Kulik rivers, the other trophy fish areas around Lake Iliamna are accessible only by float plane and receive less effort.

Nonresident Acceptance:

Civilian nonresident anglers agreed with existing regulations. Most felt the department would be justified in enacting similar management in other areas of Alaska to preserve unique fisheries. These fishermen showed great cooperation in creel census and sampling requests.

Resident Acceptance:

The majority of the resident civilian anglers have expressed acceptance of the existing regulations and imply an increase in angler interest due to the trophy fishery connotation.

These fishermen, at the same time, expressed thoughts that the special restrictions created for these areas would protect the trophy fish stocks in years to come.

Retention and Release of Trophy Fish

Retention-release ratio of trophy species among military anglers was lower than the ratio among civilian anglers.

Military recreation camp facilities at Igiugig included three freezers for fish retention. Most anglers would keep one bag limit per day, and when the fishing group terminated its camp stay, each angler had several frozen fish bag limits in his possession.

The released-fish ratio was higher among civilian anglers. A reduced bag limit resulted in the release of significant numbers of fish. Generally, less than a single bag limit was retained, including either one large trophy-sized fish for mounting purposes or several smaller fish for the table. Anglers appreciated the natural, undisturbed beauty and the trophy fishing areas uncrowded atmosphere.

There were regulation violations by both military and civilian anglers. This will likely continue until an attitude change is affected through an extensive educational program.

Subsistence Fishing Impact

Subsistence fishing for rainbow trout in trophy fishing areas has been present for years. Prior to sport fishery development, this effort had little effect upon the overall trout population and the two fisheries have been largely compatible.

Presently, however, with the demand for trophy rainbow trout increasing annually, it seems likely that a conflict may exist now, or will become evident in the near future. Fishing set gill nets in trophy trout waters, as practiced at Igiugig, Newhalen, and Gibraltar during spring and fall, has produced concern.

The effects of current or projected subsistence uses cannot be accurately defined by the current investigational program. There are, however, indications that the trophy rainbow trout resource is limited and continued subsistence use at the present level may soon be inimical to the sport fishery.

To the trophy angler, a really big rainbow trout may represent the fulfillment of hopes upon which it is impossible to set a dollar value. In pursuit of these fish, he may spend hundreds, even thousands, of dollars benefitting the Alaskan economy. The subsistence fisherman compares the rainbow trout to other acceptable food items.

Fairly compensating the subsistence fisherman for vacating his fishery, by finding an acceptable method, in favor of the angler would not seem to be economically difficult. The social and political problems inherent in any attempt to change such an age-old right must, however, be recognized.

Subsistence fishery biology must be documented before a real solution can be expected. Economic benefits of trophy rainbow trout angler utilization are overwhelmingly evident and call for a vigorous attempt to seek an acceptable solution.

LITERATURE CITED

Paddock, Alfred D. 1969. Inventory and Cataloging of the Sport Fish and Sport Fish Waters in the Bristol Bay and Lower Kuskokwim Drainages. Alaska Department of Fish and Game. Federal Aid In Fish Restoration, Annual Report of Progress, 1968-1969, Project F-9-1, 10:247-264.

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Date: May 1, 1970.